



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,060	04/04/2005	Yves Demars	266383US6PCT	6279
22850	7590	04/21/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
A. PHI DIEU TRAN				
ART UNIT		PAPER NUMBER		
3633				
NOTIFICATION DATE		DELIVERY MODE		
04/21/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/530,060

Applicant(s)

DEMARS ET AL.

Examiner

PHI D. A

Art Unit

3633

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of claim 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 17-19, 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation to “strip” is confusing. Should it be “spacer” instead?

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-14, 16-18, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornung et al (6974518) in view of Seelen et al (2768475).

Horning et al (figure 20D-28) shows an insulating glazing panel comprising a first glass pane ((figure 20D, the glass 164), a second glass pane (the pane opposite 164) extends substantially parallel to the first glass pane and that is separated from the first glass pane by a gas space such that an internal face of the first glass pane directly faces an internal face of the second glass pane, a spacer (162) configured to keep the first and second glass panes apart, the spacer including a first end face, a second end face that extends substantially parallel to the first end face, a substantially flat external face that extends between and substantially perpendicular to the first end face and the second end face, a substantially flat internal face that extends between and substantially perpendicular to the first end face and the second end face, that extends substantially parallel to the external face, and that includes a gas space facing portion that directly faces the gas space, the spacer is fitted at least partly around a perimeter of the glazing

panel and fixed to the glass panes, the spacer is offset toward an interior of the glazing panel such that the spacer is set back with respect to an end face of the second glass pane, the second end face of the spacer directly faces the internal face of the second glass pane, the spacer is offset toward the interior of the glazing panel such that the spacer is set back with respect to an end face of the first glass pane, the first end face of the spacer directly faces the internal face of the first glass pane, end faces of the glass panes are level with respect to each other on at least one side of the glass panes that includes the spacer (figure 18), end faces of the glass panes are offset levelwise with respect to each other (figure 20, figure 21), one of the panels being larger than the other (col 11-12, lines 65-10), the strip rests via a first end face against the internal face of the larger of the glass panes and, via a second end face opposite the first end face against the internal face of the other glass pane and level with the end face of the other glass pane or set back toward the interior of the glazing panel with respect to the end face of the other glass pane, end faces of the glass panes are offset levelwise with respect to each other and an internal face of the strip rests against the end face of the glass pane offset toward the interior of the glazing panel (figure 23) and one of the end faces of the strip rests against the internal face of the other glass pane (figure 23), the second fastener(166) covers the end face of the outer glass pane offset toward the interior of the glazing panel, and the edge of the strip is contiguous with the other glass pane or the end face of the strip placed against the internal face of the other glass pane, a material forming the strip includes means for sealing with respect to the interior of the panel, strip having a buckling strength per unit length of at least 400N/m (the strip is made of metal, col 11 lines 60-64, inherently having the claimed property as it is the same material as disclosed by applicant),

the strip includes on one or both of its faces, functional elements formed in a material of the strip (col 11 lines 60-64).

Hormung does not show the spacer is fixed by adhesive bonding using at least a first fastener and second fastener, the first fastener directly contacts the internal face of the spacer, the first end face of the spacer, and the internal face of the first glass pane, or wherein the first fastener directly contacts the internal face of the spacer and an end face of the first glass pane such that the end face of the first glass pane directly faces the internal face of the spacer.

the first fastener having at least a portion placed on the internal face of the strip, and is adhesively bonded against at least one internal face of the one glass pane, wherein at least the first fastener including means for sealing with respect to the interior of the glazing panel.

Seelen et al discloses a spacer (14) fixed by adhesive bonding using a first and second fastener(19, on either side of part 14), the first fastener having at least a portion (figure 7) placed on the internal face of the spacer (figure 7), and is adhesively bonded against at least one internal face of the one glass panes, wherein the first and second fasteners including means for sealing with respect to the interior of the glazing panel.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Hormung's structure to show a spacer (14) fixed by adhesive bonding using a first and second fastener(19, on either side of part 14), the first fastener having at least a portion (figure 7) placed on the internal face of the spacer (figure 7), and is adhesively bonded against at least one internal face of the one glass panes, wherein the first and second fasteners including means for sealing with respect to the interior of the glazing panel as taught by Seelen

et al because it enables the secured fastening of the spacer to the panes to precisely space and hold the panes prior to the application of other fastening means.

Hornung as modified shows the spacer is fixed by adhesive bonding using at least a first fastener and second fastener, the first fastener directly contacts the internal face of the spacer, the first end face of the spacer, and the internal face of the first glass pane, or wherein the first fastener directly contacts the internal face of the spacer and an end face of the first glass pane such that the end face of the first glass pane directly faces the internal face of the spacer, the at least first fastener including means for sealing with respect to the interior of the glazing panel, the second fastener directly contacts the external face of the spacer, the spacer is adhesively bonded against the internal face of the first glass pane, the second fastener directly contacts the second end face of the spacer, the internal face of the spacer, and the internal face of the second glass pane so as to extend toward the interior of the glazing panel on the gas space side, the first fastener directly contacts the first end face of the spacer, the internal face of the spacer, and the internal face of the first glass pane.

3. Claims 20-21, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornung et al (6974518) in view of Seelen et al (2768475) as applied to claim 13 above and further in view of Battersby (3957406).

Hornung et al as modified shows all the claimed limitations except for the fastener including an adhesive of hot melt type, the adhesive resisting tear stresses of at least 0.45MPa.

Battersby shows a hot melt adhesive (52) bonding the spacer to the panes.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Hornung et al's modified structure to show the fastener including an

adhesive of hot melt type because hot melt adhesive are readily available and well known for using to bond glass panes together as taught by Battersby.

Horning et al as modified shows the adhesive being thermoplastic and having polyurethane. The adhesive in Hornung et al's modified structure also is able to withstand tear stresses of at least 0.45Mpa as claimed

4. Claims 13-19, 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (5437902) in view of Seelen et al (2768475).

Itoh (figure 1F) shows an insulating glazing panel comprising a first glass pane, a second glass pane (either 2 or 2') extends substantially parallel to the first glass pane and that is separated from the first glass pane by a gas space such that an internal face of the first glass pane directly faces an internal face of the second glass pane, a spacer (3) configured to keep the first and second glass panes apart, the spacer including a first end face, a second end face that extends substantially parallel to the first end face (the end faces being where the adhesive 5 locate), a substantially flat external face that extends between and substantially perpendicular to the first end face and the second end face, a substantially flat internal face (the cantilever face which extends perpendicular to the end face) that extends between and substantially perpendicular to the first end face and the second end face, that extends substantially parallel to the external face, and that includes a gas space facing portion that directly faces the gas space, the spacer is fitted at least partly around a perimeter of the glazing panel and fixed to the glass panes by adhesive bonding (5) using a first fastener (5 left) and a second fastener (5 right and a portion external to part 5 right), the spacer is offset toward an interior of the glazing panel such that the spacer is set back with respect to an end face of the second glass pane(2) and is adhesively bonded against the

internal face of the second glass pane such that the second end face of the spacer directly faces the internal face of the second glass pane, the first fastener directly contacts the internal face of the spacer, the first end face of the spacer, at least the first fastener including means (6) for sealing with respect to the interior of the glazing panel, the second fastener directly contacts the external face of the spacer on an outside of the glazing panel, and directly contacts the internal face of the second glass pane, the spacer is offset toward the interior of the glazing panel such that the spacer is set back with respect to an end face of the first glass pane and is adhesively bonded against the internal face of the first glass pane such that the first end face of the spacer directly faces the internal face of the first glass pane, wherein the second fastener directly contacts the second end face of the spacer, the internal face of the second glass pane so as to extend toward the interior of the glazing panel on the gas space side, the end faces of the glass panes are level with respect to each other on at least one side of the glass panes that includes the strip (figure 1E), end faces of the glass panes are offset levelwise with respect to each other, one of the glass panes being larger (2) than the other, and the strip/spacer rests via a first end face against the internal face of the larger of the glass panes (figure 1F), and via a second end face opposite the first end face against the internal face of the other glass pane and level with the end face of the other glass pane, wherein end faces of the glass panes are offset levelwise with respect to each other (figure 1F) and an internal face of the strip rests against the end face of the glass pane offset toward the interior of the glazing panel, and one of the end faces of the strip rests against the internal face of the other glass pane, a second fastener (6) covers the end face of the other glass pane offset toward the interior of the glazing panel, and the edge of the strip is contiguous with the other glass pane, a material forming the strip having a buckling strength per

unit length of at least 400 N/m (col 8 lines 12-13, steel...etc), the strip including on one or both of its faces, functional elements formed in a material of the strip,

Itoh does not show the first fastener directly contacts the internal face of the spacer.

Seelen et al discloses a spacer (14) fixed by adhesive bonding using a first and second fastener(19, on either side of part 14), the first fastener having at least a portion (figure 7) placed on the internal face of the spacer (figure 7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Itoh's structure to show a spacer (14) fixed by adhesive bonding using a first and second fastener(19, on either side of part 14), the first fastener having at least a portion (figure 7) placed on the internal face of the spacer (figure 7), and is adhesively bonded against at least one internal face of the one glass panes as taught by Seelen et al because it enables the secured fastening of the spacer to the panes to precisely space and hold the panes together.

Per claim 16, Itoh as modified further shows the second fastener directly contacts the internal face of the spacer.

Per claim 25, Itoh as modified further shows the first fastener directly contacts the internal face of the spacer.

Per claim 26, Itoh as modified further shows the first fastener directly contacts the internal face of the spacer and the end face of the first glass pane such that the internal face of the spacer directly faces the end face of the second glass pane, wherein the end face of the second glass pane is substantially perpendicular to the internal face of the second glass pane (figure 1F), and wherein the end face of the second glass pane(2') is substantially perpendicular to the internal face of the second glass pane, wherein the end face of the second glass pane is offset

with respect to the end face of the first glass pane (2) on a side of the first and second glass panes that includes the spacer.

5. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (5437902) in view of Seelen et al (2768475) as applied to claim 13 above and further in view of Battersby (3957406).

Itoh as modified shows all the claimed limitations except for the fastener including an adhesive of hot melt type, the adhesive resisting tear stresses of at least 0.45MPa.

Battersby shows a hot melt adhesive (52) bonding the spacer to the panes.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Itoh's modified structure to show the fastener including an adhesive of hot melt type because hot melt adhesive are readily available and well known for using to bond glass panes together as taught by Battersby.

Itoh as modified shows the adhesive being thermoplastic and having polyurethane. The adhesive in Itoh's modified structure also is able to withstand tear stresses of at least 0.45Mpa as claimed.

Response to Arguments

6. Applicant's arguments with respect to claims 13-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows different glass unit designs.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3633

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phi D A/

Primary Examiner, Art Unit 3633

Phi Dicu Tran A

17/04/093/16/09